

WHAT IS CLAIMED IS:

1. An optical connector, comprising:

a hollow, cylindrical shroud comprising a cylindrical section, a bore defined within the cylindrical section, the bore having a diameter to allow an optical fiber connector to fit therein and allow the same to plug or unplug a predetermined number of times, the bore being terminated at an opening in the bottom of the cylindrical section;

a cylinder axially extended a predetermined distance from a center of the bottom of the cylindrical section, the cylinder comprising a longitudinal hole with an optical fiber fitted therein wherein a precise circularity in each of the bore and the longitudinal hole and coaxial characteristics of the same are obtained by forming the shroud and the cylinder by electrical casting, and a longitudinal axis of the bore is coaxial with a core of the optical fiber; and

an annular flange formed integrally in a bottom of the shroud by electrical casting or injection molding, the flange being adapted to fasten either a laser diode element or a light detection element.

2. The optical connector of claim 1, further comprising a longitudinal slit on a surface of the shroud, the slit being adapted to provide a sufficient flexibility of the optical connector for withstanding the predetermined times of plugging or unplugging of the optical fiber connector into or from the bore.

3. The optical connector of claim 1, further comprising a plurality of channels in the bottom of the shroud, the channels being equally spaced around the cylinder.

4. The optical connector of claim 1, further comprising a slope formed by shaving the bottom of the cylinder.

5. An optical connector, comprising:

a hollow, cylindrical shroud comprising a cylindrical first section, a

- cylindrical second section at a bottom of the first section, the second section comprising a bottom and an annular shoulder, and a bore defined within the first section, the bore having a diameter to allow an optical fiber connector to fit therein and allow the same to plug or unplug a predetermined number of times,
- 5 the bore being terminated at an opening in the bottom of the first section;
- a cylinder axially extended a predetermined distance from a center of the bottom of the second section, the cylinder comprising a longitudinal hole with an optical fiber fitted therein wherein a precise circularity in each of the bore and the longitudinal hole and coaxial characteristics of the same are obtained by
- 10 forming the shroud and the cylinder by injection molding, and a longitudinal axis of the bore is coaxial with a core of the optical fiber; and
- an annular flange assembly formed integrally in a bottom of the shroud by injection molding or riveting, the flange assembly comprising an interior cavity with the shoulder coupled to a top of the cavity by injection molding or riveting,
- 15 thereby securing the flange assembly to a laser diode element or a light detection element.
6. The optical connector of claim 5, further comprising a longitudinal slit on a surface of the shroud, the slit being adapted to provide a sufficient flexibility of the optical connector for withstanding the predetermined times of plugging or
- 20 unplugging.
7. The optical connector of claim 5, further comprising a plurality of channels in the bottom of the second section, the channels being equally spaced around the cylinder.
8. The optical connector of claim 5, further comprising a slope formed by
- 25 shaving the bottom of the cylinder.